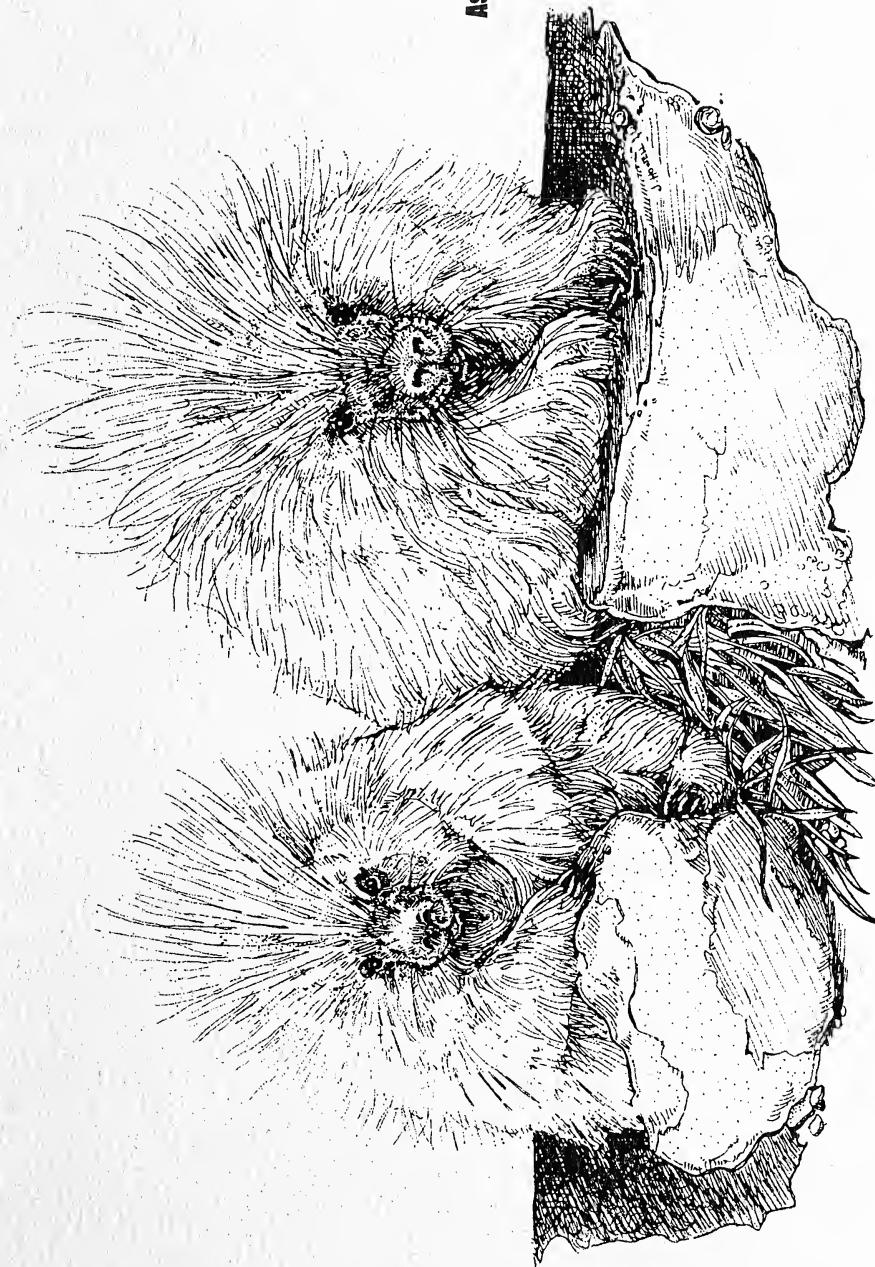


# ANIMAL KEEPERS' FORUM

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Association of Zoo Keepers

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33rd Anniversary - 1974 - 2007

## MISSION STATEMENT

American Association of Zoo Keepers, Inc.

To provide a resource and a forum of continuing education for the animal care professional and to support zoo and aquarium personnel in their roles as animal care givers, scientific researchers, public educators and conservationists. To promote zoos and aquariums as cultural establishments dedicated to the enrichment of human and natural resources; to foster the exchange of research materials, enrichment options and husbandry information through publications and conferences which will lead to a greater understanding of the needs and requirements of all animals.

This month's cover features the North American Porcupine (*Erethizon dorsatum*) drawn by Jolene Howell of Ellsworth Air Force Base, South Dakota, who worked during 2007 as an Animal Caretaker at Bear Country U.S.A. This facility houses a family of three North American Porcupines, referred to fondly as "Ma-Pine", "Pa-Pine", and "Spike", their two-year-old male offspring. Pa Pine and Spike are featured in the illustration, posed on the rock ledge of their enclosure in the Babyland area of the park, which displays smaller and young animals. Also known as quillpigs, pricklepigs and quillers, the word porcupine comes from French words that mean "spiny pig". However, the porcupine is not a pig, but a rodent. The Beaver is the only other rodent larger than the porcupine found in North America. The different kinds of hair that make up a porcupine's coat makes the animal look larger and heavier than it actually is. Soft fluffy hair forms a thick layer all over the animal, and long hairs in the coat, called guard hairs, help the porcupine stay dry. The guard hairs look like thin quills. However, the real quills are special hairs with sharp, barbed ends that are difficult to remove. A porcupine has about 30,000 quills that grow all over its body except for its snout, ears and underbelly. Porcupines cannot 'shoot' or throw their quills, as is sometimes believed. Most of the time, the quills lie flat, but if a porcupine feels threatened, they spring up and point out in all directions. Porcupines regularly shed and regrow new quills. Porcupines have long whiskers which help the animals feel their way around at night and in dark environments. Even in daylight, their small eyes cannot see very well, but their senses of smell and hearing are highly developed. Sharp claws, pebbly-soled feet and a bristly tail help porcupines climb trees, which provide tasty bark, leaves and buds, and a safe place to sleep. The porcupines at Bear Country U.S.A. are provided freshly cut trees regularly to keep up with their constant climbing and gnawing habits. thanks, Jolene!

Articles sent to *Animal Keepers' Forum* will be reviewed by the editorial staff for publication. Articles of a research or technical nature will be submitted to one or more of the zoo professionals who serve as referees for *AKF*. No commitment is made to the author, but an effort will be made to publish articles as soon as possible. Lengthy articles may be separated into monthly installments at the discretion of the editor. The editor reserves the right to edit material without consultation unless approval is requested in writing by the author. Materials submitted will not be returned unless accompanied by a stamped, self-addressed, appropriately-sized envelope. Telephone, fax or email contributions of late-breaking news or last-minute insertions are accepted as space allows. Phone 785-273-9149; FAX (785) 273-1980; email is [akfeditor@zk.kscoxmail.com](mailto:akfeditor@zk.kscoxmail.com). If you have questions about submission guidelines, please contact the Editor.

**Deadline for each regular issue is the 10th of the preceding month.**

**Dedicated issues may have separate deadline dates and will be noted by the editor.**

Articles printed do not necessarily reflect the opinions of the *AKF* staff or the American Association of Zoo Keepers, Inc. Publication does not indicate endorsement by the Association.

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**BFR Website: <http://aazkbfr.org>**

## *From the Editor*

Welcome to 2008, the 35<sup>th</sup> year of continuous publication for *Animal Keepers' Forum*, and the beginning of my 27<sup>th</sup> year as Managing Editor. I wanted to take this opportunity to thank all those who help to make the *Forum* a continually evolving publication for all those in the zoo field. My appreciation goes out to *AKF* Associate Editors Kayla Grams, Mark de Denus and Jolene Hansen for their assistance and advice. Special thanks to Jolene for putting together the 2007 Index you will find at the back of this issue. I would like to thank the individuals who coordinate the various columns seen monthly in the journal: Bill Baker ~ *Reactions*; Rachel Denault ~ *Enrichment Options*; Angela Binney, Kim Kezer and Jay Pratte ~ *ATC – Animal Training Tales*; and Becky Richendollar and Greg Mc Kinney ~ *Conservation/Legislative Update*. Their efforts help provide our members with valuable information on enrichment, animal training, crisis management and current conservation and legislative issues. I would also like to thank all those who have submitted manuscripts for inclusion in the pages of *AKF*. Your willingness to share your expertise, research and experiences provides all AAZK members with a vast amount of information they can apply to their daily routines. Finally, I would like to thank those individuals who have translated their passion about wildlife and animal keeping into the outstanding covers you see on the journal each month.

In response to the results of the Membership Survey that was taken, we will be making a few changes to the *AKF*. Because of the overwhelming interest expressed in information on enrichment and animal training, we will now be running both the *Enrichment Options* and the *ATC – Animal Training Tales* columns on a monthly basis. The *Reactions* column will now be published on a quarterly basis and readers are encouraged to submit their questions for this column. *Conservation/Legislative Update* will continue on a monthly basis, but may be shortened in length depending on space constraints. At the direction of the AAZK Board, *Chapter News* will no longer appear as a regular feature, but will be published electronically on the AAZK website ([www.aazk.org](http://www.aazk.org)) and in *INSIGHT*, the monthly electronic newsletter for AAZK Chapters.

We will plan to publish *AKF* 12 times a year with an occasional special dedicated issue similar to the ones previously done on the cheetah, polar bear and crisis management in zoos. Speaking of which, I hope by the time you are reading this you will have received the combined Nov/Dec 2007 issue of *AKF* dedicated to Crisis Management in Zoos. Due to circumstances beyond our control, including the breakdown of a printing press and a ice storm, this issue did not get in the mails as early as we had originally planned. But we hope that the wealth of information included will have made it worth the wait. Special thanks to my co-editor for this issue, Bill Baker.

We are moving towards the possibility of using more photographs in *AKF* and occasionally using them on the cover in place of cover art. Therefore, we will be opening up a photo library to which we invite you to submit your best photos. Please look for information on how to submit photos in the Scoops section in this issue. We will still be using keeper-generated cover art on our covers most of the time due to the additional expense of four-color printing.

I want to encourage you to make this the year you submit that article you have been planning on writing—become a part of the information exchange that benefits us all. We are always interested in hearing your thoughts and opinions on ways we can improve *AKF*.



Susan Chan, *AKF* Managing Editor

# ***Scoops & Scuttlebutt***



Because of the combined Nov/Dec issue dedicated to Crisis Management in Zoos, we have a lot of catching up to do with regular features and announcements. So here goes.....

## **A Final Word from the '07 Galveston Conference Committee**

The 2007 AAZK Conference in Galveston, TX was a great success. Great weather, good food, and fabulous Texas hospitality abounded. We had 208 delegates from 90 institutions covering three countries. With over 30 presentations, 15 posters, and six workshops there was a lot of information covered over the week. Many thanks to all our sponsors, exhibitors, and presenters - this conference would not have been possible without you! Our Chapter of 16 dedicated keepers had a "Thriller" of a time planning for and hosting fellow keepers. Mark your calendars now for next year's conference in Salt Lake City, UT 24-28 September 2008. -*Conference Committee*

And a huge Thank You to all those who helped to make the Galveston Conference one to remember. Your hard work in planning and carrying out the event is much appreciated!

Conference Proceedings from the Galveston Conference will be available as downloadable pdfs from the "Member's Only" section of the AAZK website ([www.aazk.org](http://www.aazk.org)) soon. Watch for announcement of their availability in *AKF* and on the home page of the website.

If you had a chance to see the great new AAZK logo fleece zip-front sweatshirts at Galveston, you will be glad to know they are now available to order from the AAZK website ([www.aazk.org](http://www.aazk.org)). They are available in navy or black in SM, M, L and Xlg. Look under "New Merchandise Available".

## **Reminder to All AAZK Chapters on Recharter Process for 2008**

All AAZK Chapters are reminded that re-chartering for all Chapters for 2008 is now underway. Re-chartering packet information was sent electronically via email to the email address each Chapter had provided to the Administrative Office in 2007. These were sent out the first week in January and are due back at AO by **15 February 2008** (with late fees applicable after 1 March 2008). If you did not receive your re-chartering info via email, contact Barbara Manspeaker immediately by calling 785-273-9149 or emailing her at [aazkoffice@zk.kscoxmail.com](mailto:aazkoffice@zk.kscoxmail.com). If you have questions about filling out the required information, give Barbara a call and she will be glad to help you out. Receipt of re-chartering information from **every** AAZK Chapter is required as we need to submit certain information to the Internal Revenue Service in order to protect AAZK's 501(c)(3) nonprofit status. Your prompt attention to this matter is greatly appreciated.

## **AAZK Committee Seeks New Members**

The following AAZK Committees are seeking new members:

### ***• Professional Development Committee Member Search***

Your Professional Development Committee is seeking two members to join our team. This is a dynamic and energetic committee focused on providing the best possible resources for professional continuing education and personal growth within the field of zookeeping.

Anyone interested in joining this team may contact Tammy Schmidt at [tschmidt@peoriazoo.org](mailto:tschmidt@peoriazoo.org).  
**Deadline for application is 20 February 2008.**

- ***Animal Training Committee Seeks New Members***

Applicants should be Professional members of the American Association of Zoo Keepers, Inc. Desired qualities include: a demonstrated understanding of animal training techniques, including operant conditioning; several years of experience training animals, preferably in a zoological or aquarium setting; an ability to communicate effectively and to facilitate learning through writing, workshop development and implementation. Although it is not required, it is helpful if committee members are able to attend the annual conference to help facilitate workshops and attend meetings. This position will include active participation in projects, including writing and resource development. Institutional support or approval is not mandatory, but is helpful to both the new member and the committee.

For more information about the Animal Training Committee visit [www.aazk.org](http://www.aazk.org) Interested keepers should send a letter of intent and resumé to Kim Kezer, committee co-chair, at the email address: [kim@kezer.net](mailto:kim@kezer.net) Please use “ATC Member applicant” as the subject line in the email. **The deadline for application is 15 March 2008.**

### **AAZK Announces Venomous Animal Husbandry and Safety Workshop**

The American Association of Zoo Keepers’ Professional Development Committee is working on a two-day, weekend workshop for Venomous Animal Husbandry and Safety, to be held in late April or early May 2008, in the Mid-Atlantic region of the United States. A second course may be scheduled in 2009. This would be a certified course, and continuing education credits may be available. The cost has not yet been determined, but will be made as affordable as possible. The Committee would like to poll animal care professionals on their interest in this course. Please respond to Shane Good, AAZK President, at [shane.good@aazk.org](mailto:shane.good@aazk.org) by **January 20, 2008**. Please answer the following questions in your email reply.

- Are you interested in attending the workshop? If so, 2008 or 2009?
- Are you interested in serving as an instructor at the workshop? If so, 2008 or 2009?
- What subjects would you like to see covered?
- What subjects would you be willing to teach?

### **Formation of the New York State Zoo’s Education and Program Animal Information Center and Database - Participation Encouraged**

SEE: <http://www.programanimalsonline.org/>

This searchable, web delivered database provides information regarding the various species of animals that are currently being used as program or education animals in zoos, aquaria, nature and science centers and by professional wildlife educators in North America. The goal of the website is to provide professionals who make use of animals in their educational programming with the information to make wise choices in developing their program animal collections.

When launched, the database was built from lists of species used as program animals provided by staff at zoos, aquaria, nature and science centers and professional wildlife educators. The current list is in no way comprehensive and individuals will have the ability to enter new species that may not be found on the list.

A great deal of information regarding each species will be available. The majority of the information provided is dependent upon users registering and then answering a number of questions regarding how a particular species is used in programming, perceptions of cost and benefit of a particular species and other use parameters. Information is also provided regarding taxonomic status, continent(s) of origin, habitat or biome type and lifestyle parameters.

At its simplest, a user could search the database to generate a list of species currently used as a program animal based on a number of search fields (i.e. African mammals or terrestrial invertebrates). As individuals provide input regarding their experience with the species, users will be able to review this information to determine if the species meets their needs or abilities.

Individuals within the Zoo and Aquarium fields are encouraged to input data. Providing data is not limited to one representative per institution, but all individuals with experience with a species are encouraged to enter data (i.e. Animal Husbandry Staff, Education Department staff, etc.). The more individuals providing information, the more valuable the database will be.

If you have questions, please contact Alexander Santa Croce at [asantacr47@hotmail.com](mailto:asantacr47@hotmail.com)

### **This and That**

A big Thank You to the members of the Columbus AAZK Chapter for their donation of \$500.00 to the General Operating Fund of the Association. We greatly appreciate their commitment and support.

- ▶ Mark your calendars now for The Ninth International Conference on Environmental Enrichment. It will be held 31 May thru 5 June 2009 in Torguay, Devon, UK. For more information about sponsorship of the event or having exhibit space please contact Julian Chapman at [<julian.chapman@paigntonzoo.org.uk>](mailto:julian.chapman@paigntonzoo.org.uk)
- ▶ Proceedings from the 2007 BIERZ Conference are now available to download at <http://www.bearkeepers.net/BIERZS2007ProgramandProceedings.pdf> It will also be available on the Polar Bears International website <http://www.polarbearsinternational.org/>

If you wish to purchase a hard copy of the Proceedings, please contact Proceedings Editor Gail Hedberg: [gailh@sfzoo.org](mailto:gailh@sfzoo.org)

- ▶ Checklist of Cheloniens of the World by Uwe Fritz & Peter Havas in *Vertebrate Zoology* 57(2): 149-368. This checklist is based on the International Code of Zoological Nomenclature (ICZN 1999) and provides a complete synonymy of generic and species-group names of recent chelonian species as published until 31 December 2006, including taxa exterminated in historic times. A gratis PDF of this article is available from the Center for North American Herpetology PDF Library at [http://www.cnah.org/cnah\\_pdf.asp](http://www.cnah.org/cnah_pdf.asp)

### **ATTENTION PHOTOGRAPHERS ! !**

We would like to begin putting together a library of photographs to be utilized in *Animal Keepers' Forum* either as an occasional four-color cover or in conjunction with material inside the journal. We plan to gather this photo library electronically in jpg or tif formats. Past President Denise Wagner will be gathering and organizing this photo archive and photographers interested in submitting photos should send them to her at [<denise.wagner@aazk.org>](mailto:denise.wagner@aazk.org) Photos should be high resolution and in either jpg or tif format. When sending, please include common and scientific name of species featured in photo. Please put "Photo Library" in the subject line. Each photo must be accompanied by a Photo Release Form that is available on the AAZK website ([www.aazk.org](http://www.aazk.org)). You may submit the form electronically to Denise or print it out, obtain required signatures and send by regular mail to Susan Chan, AAZK, Inc., 3601 SW 29<sup>th</sup> St., Suite 133, Topeka, KS 66614-2054 Attn: photo release.

AAZK, Inc. does not pay for photographs, but will give appropriate photo credit to individual photographers and/or institutions whenever a photo is utilized and a copy of the *AKF* issue in which the photograph appears will be sent to the photographer and/or institution.

# Coming Events

**2008 Gorilla Workshop** - January 23-27, 2008 - Hosted by Disney's Animal Kingdom and the Brevard Zoo in Orlando, FL. For more information see 2008GorillaWorkshop.com, or call Beth Armstrong at (614) 506-7368 or Rachel Daneault at (407) 938-2337.

**2nd Annual Tree Kangaroo Workshop** - February 15-17, 2008 - Hosted by the Dallas World Aquarium. Registration: \$100, includes most meals and materials. For more information contact: Jacque Blessington, TK-SSP Coordinator jacsprat65@aol.com

**3rd Annual Aquatic Medicine Seminar** - February 22-24, 2008 - In Las Vegas, NV. The program consists of two full days of lecture on a wide range of aquatic animal health and medicine topics with an emphasis one elasmobranchs. In addition, there is a "wet lab" on day three that provides a "hands-on" learning experience. For additional information please contact Jack Jewell at (9702) 632-4560 or email [jjewell@mandalaybay.com](mailto:jjewell@mandalaybay.com)<

**2008 IAATE Annual Conference** - March 5-8, 2008 - In Holland, The Netherlands. Join IAATE on *An International Migration*. It's not too early to start planning to attend the 16th annual IAATE Conference hosted by Voglepark Avifauna in Holland, The Netherlands. The 2008 IAATE Conference will provide a wonderful opportunity to learn more about strides in avian training, show content, educational messaging, equipment making, enrichment, animal management, avian health and welfare from the leading authorities in the industry. Pre- and Post-Conference Trips to several European facilities and tourist destinations including Artis Zoo, Falconiformes breeding center, Blijdorp-Rotterdam Zoo, Bird Park Walsrode, Van Gogh Museum and the Anne Frank house are all on the agenda. For more information visit [www.iaate.org](http://www.iaate.org) <<http://www.iaate.org>> and start planning your International Migration!

**1st International Wildlife Reintroduction Conference** - April 15-16, 2008 - In Chicago, IL. To be hosted by the IUCN/SSC Reintroduction Specialist Group (RSG) and Lincoln Park Zoo. The theme of the conference will be "Reintroduction Programs: Applying Science to Conservation". Registration is limited to 275 participants. More information about the conference theme and topics is available at the website <http://www.reintroduction.org>

**Animal Behavior Management Alliance (ABMA) Conference** - April 27 - May 3, 2008 - In Phoenix, AZ. Hosted by the Phoenix Zoo, Arizona-Sonora Desert Museum, Reid Park Zoo, and Wildlife World Zoo. The mission of the ABMA is to advance animal behavior management, including training and enrichment, in order to enhance the husbandry and

welfare of animals. The 2008 conference keynote speaker is Dr. Temple Grandin, and the conference includes paper and poster presentations, discussion groups, and workshops on topics including Animal Training 101, Behavioral Enrichment, and Advanced Training Concepts. Remember that AAZK members can receive the discounted members registration rate for the ABMA conference! For more information please visit [www.theabma.org](http://www.theabma.org) or contact ABMA 1st Vice President Raquel Gardner at [rgardner@thephxzoo.com](mailto:rgardner@thephxzoo.com)

**Australasian Society of Zoo Keepers (ASZK) Conference** - May 23-25, 2008 - At Sydney Academy of Sports, Narrabeen, Sydney, NSW Australia. Contact [www.aszk.org.au](http://www.aszk.org.au) or [eo@aszk.org.au](mailto:eo@aszk.org.au)

**International Primatological Society XXII Congress** - August 3-8, 2008 - Edinburgh, Scotland. Online registration is now live. Please click on <http://www.ips2008.co.uk/Registration.html> to register to attend this exciting congress.

**Otter Keeper Workshop** - October 9-12, 2008 - Hosted by the Oakland Zoo in Oakland, CA. The focus of the workshop will be North American river otters and Asian small-clawed otters. Keepers of other species are welcome to attend. Topics will include: captive management issues, enrichment, training, water quality, health care, nutrition, diet, hand-raising, exhibit design, lots of sharing of information between keepers. Registration deadline is February 15, 2008. Class size is limited to 20. For more information, contact David Hamilton- call 585-336-2502 or [emaildhamilton@monroecounty.gov](mailto:emaildhamilton@monroecounty.gov)<

**Seventh International Aquarium Congress** - October 19-24, 2008 - To be held in Shanghai, China. The theme is "Progress & Conservation: The Role of Aquariums in Protecting the Aquatic Environment". Main discussion sections include: Conservation and Education, Husbandry and Management, and Progress and Advances. For further information, please contact the IAC Secretariat Office: email - [Secretariat@iac2008.cn](mailto:Secretariat@iac2008.cn) Phone: 86-21-54065152; Fax 86-21-54065150. See the conference website at [www.iac2008.cn](http://www.iac2008.cn)

Post Your Coming Events Here

email to: [akfeditor@zk.kscoxmail.com](mailto:akfeditor@zk.kscoxmail.com)



# From the President

It is now 2008, and with each new year comes resolutions, the promise of new beginnings, and the occasion for new achievements. It is an exciting year for AAZK members, considering:

- Bowling for Rhinos has become bigger and better than ever, and this year we will surpass the \$3 million mark in funds raised for rhino conservation.

- Chapters and zoos will be observing both Year of the Polar Bear and Year of the Frog. No matter which icon you choose, 2008 will be the Year of Climate Change Awareness. With it

comes the opportunity to educate millions, save not only species but entire ecosystems, and quite possibly save our own species from self-destruction.

- The commitment of our Chapters has allowed AAZK, Inc. to reverse its financial crisis and progress into improving the Association. The new year should bring the Association improvements to the *Animal Keepers' Forum*, an enhanced website, including a member's only section loaded with free and easily accessible information, new committees, more benefits to members, expanded opportunities in professional development, and further development of our Association as a leader in professional animal care and conservation.

One thing that will be new in 2008 is the format of my Letter from the President. The new format could appear as just about anything, such as an essay on a specific topic in animal care or conservation, a challenge to the membership, or a haiku on the existential meaning of being a zookeeper. Whatever the format, the goal will remain to increase and improve the dialogue between AAZK members and your President. I can be reached at [shane.good@aazk.org](mailto:shane.good@aazk.org). Send me your thoughts, comments, ideas, and concerns. Have a safe, healthy, and happy new year. Until next time, here's my

## Top 5 suggested New Year's Resolutions for AAZK Members

1. If your institution does not have an AAZK Chapter, be the leader who starts one.
2. Start an AAZK membership drive at your zoo.
3. Resolve to try a new fundraiser, a new conservation project, or education project.
4. Consider a strategic planning session for your Chapter. What do you want from AAZK in the next year, in the next five years? More fundraising, more hands-on conservation work, more educating the public, more professional development opportunities for your Chapter members, more networking opportunities? Make a plan and make it happen.
5. Have FUN, in every aspect of your life. In AAZK, and all of your personal, professional, and academic endeavors.

Shane Good, AAZK President  
[shane.good@aazk.org](mailto:shane.good@aazk.org)

## AAZK Announces New Members

Debi Willoughby, **Jungle Encounters (MA)**; Jeffrey Taylor, no zoo listed **Brookline, MA**; Laura Isaacs, **Roger Williams Park Zoo (RI)**; Mary Gremier, **Bronx Zoo (NY)**; Melissa Katzenback, **Staten Island Zoo (NY)**; Katrina Guariglia, **Buffalo Zoo (NY)**; Annemarie Ferrie, **Turtleback Zoo (NJ)**; Eric Morgan, **Cohanwick Zoo (NJ)**; Grant Kemmerer, **Nemacolin Woodland Resort (PA)**; James Lotz, **Lehigh Valley Zoo (PA)**; Samantha Nestor, **Philadelphia Zoo (PA)**; Paige Strum, **The Maryland Zoo (MD)**; Rebecca Miller, no zoo listed **Bethesda, (MD)**; Dawn Lenhardt, **Maymount Foundation (VA)**; Claire Dubuisson, **Mill Mountain Zoo (VA)**; Kimberly Clark, **The Natural Science Center (NC)**; Kurt Kreinheder, **Wild Adventures (GA)**; Tenielle Welch, **Emerald Coast Wildlife Refuge (FL)**; Monica Hoffine, **Lemur Conservation Foundation (FL)**; Danielle LeBlanc, **Lion Country Safari (FL)**; James Grant and Jill Piltz, **Disney's Animal Kingdom (FL)**; Tessa Lackland, **Theater of the Sea (FL)**; Marla Tackett, **Miami Metro Zoo (FL)**; Jennifer MacNaughton, **Busch Gardens (FL)**; Michael Cover, **Palm Beach Zoo at Dreher Park (FL)**; Jeanette Daniel, **The Memphis Zoo & Aquarium (TN)**; Allison Hargett, **Knoxville Zoo (TN)**; Nancy Hehre, **Hattiesburg Zoo (MS)**; Jerry Dillon, Krista Jacobson and Kelly Trimble **Audubon Zoo (LA)**; Robin Foley, **BREC's Baton Rouge Zoo (LA)**; Loretta Manning, **Mesker Park Zoo (IN)**; Alycia Darst, C. Drew Foster and Shannon Layne, **Lincoln park Zoo (IL)**; Cassandra Kutilek-Douglas, **Cosley Zoo (IL)**; John V. Matuszek and Cassandra Harbour, **Brookfield Zoo (IL)**; Ashley Englehart, **Indianapolis zoo (IN)**; Sharon Reilly, **International Crane Foundation (WI)**; Kyle Cooke, **Cricket Hollow Zoo (IA)**; Justin Thompson, **Oklahoma City Zoo (OK)**; Wayne Edwards, **Oklahoma Wildlife Preserve (OK)**; Christopher Coleman, **Cheyenne Mountain Zoo (CO)**; Dave Berkley, **Texas State Aquarium (TX)**; Abbi Davis and Ashley Poloha, **Moody Gardens (TX)**; Catherine Plaege, **San Antonio Zoo (TX)**; Christina Goulart and Stephanie Edling **Phoenix Zoo (AZ)**; Rebecca Bates, **Tracy Aviary (UT)**; Heather Ann Phillips, **Willow Park Zoo (UT)**; Lauren Whittemore and Rhonda Rhoades **Los**

**Angeles Zoo (CA)**; Donna Sweet and Linda King, **San Diego Zoo (CA)**; California members not listing a zoo affiliation – Kelly A. Suarez (San Gabriel); Lori A. Gallo (San Diego); Wendy Ricker (Yorba Linda); Lorraine Levy (Haywood); Richard Holub (San Leandro); Ashley Camp (Calabasas); Kelly Salamone (San Diego); and Debbie Richardson (Big Bear Lake); Melissa Monahan, **High Desert Museum (OR)**; Christina Sagadraca, **Hyatt Regency Maui (HI)**; Heather Kalka, Hollie Ross and Lisa Termini, **Toronto Zoo (Ont., Canada)**; Serena Boz, **Discovery Wildlife Park (AB, Canada)**; Ashley Kirk, **Bowmanville Zoo (Ont., Canada)**; Canadian members not listing a zoo affiliation – Shelley Turner (Loretto, Ont.) and Stefanie MacEwan (Bowmanville, Ont.)

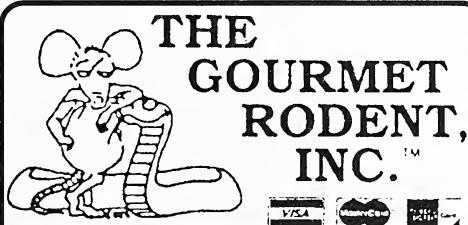
### Renewing Contributing Members

William H. Disher, Volunteer  
San Diego Zoo & Wild Animal Park  
San Diego, CA

John Rowden  
Central Park Zoo, New York, NY

Steve H. Taylor, Director  
Cleveland Metroparks Zoo  
Cleveland, OH

*(New Members continued on next page)*



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**New Contributing Members**

Donald E. Moore III, Ph.D.  
Associate Director, Animal Care  
National Zoological Park, Washington, DC

Nancy Carpenter, DVM  
Hogle Zoo, Salt Lake City, UT

**Renewing Institutional Members**

The Buffalo Zoological Gardens  
Buffalo, NY

White Oak Conservation Center  
Yulee, FL

Boonshoft Museum of Discovery  
Dayton, OH

Erie Zoo, Erie, PA

Dickerson Park Zoo  
Springfield, MO

Omaha's Henry Doorly Zoo  
Omaha, NE

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San Diego Zoo  
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Richard Farrar, Director

Rosamond Gifford Zoo at Burnet Park  
Syracuse, NY

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W. Palm Beach, FL

Keith Lovett, Director of Living Collections

Nashville Zoo  
Nashville, TN

Cleveland Metroparks Zoo  
Cleveland, OH  
Steve Taylor, Director

Milwaukee County Zoo  
Milwaukee, WI  
Chuck Wikenhauser, Director

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St. Paul, MN

Henson Robinson Zoo  
Springfield, IL

**International Exotic Feline Sanctuary**

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Houston Zoo, Houston, TX  
Rick Barongi, Director

Rainforest & Aquarium at Moody Gardens  
Galveston, TX

Santa Barbara Zoo  
Santa Barbara, CA  
Rich Block, Executive Officer

The Gorilla Foundation  
Redwood City, CA  
Penny Patterson, Director

Chimps, Inc.  
Bend, OR  
Lesley Day, Director

Michigan State University  
East Lansing, MI

**New Institutional Members**

Beardsley Zoo  
Bridgeport, CT  
Don Goff, General Curator

Columbian Park Zoo  
Lafayette, IN  
Claudine Laufman, Director

Black Pine Animal Park  
Albion, IN

WNC Nature Center  
Asheville, NC  
Bob Fay, Animal Curator

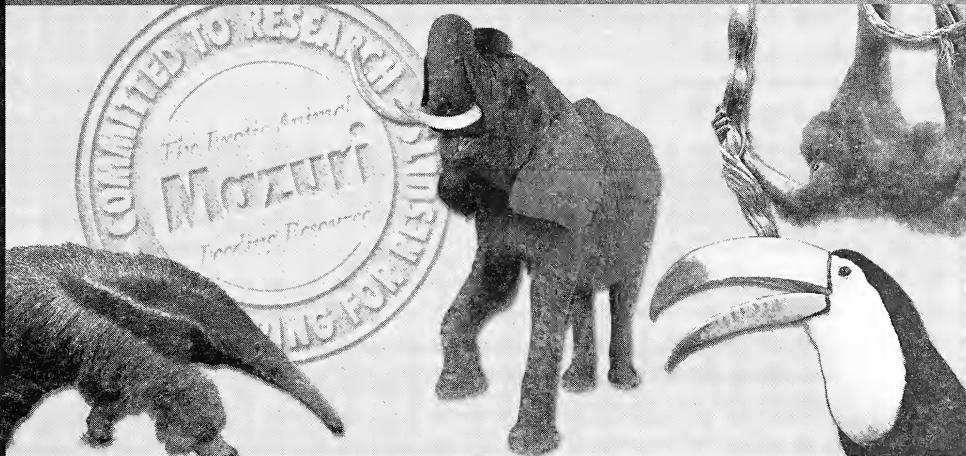
Wild Adventures Valdosta LLC  
Valdosta, GA

Big Cat Rescue  
Tampa, FL

America's Teaching Zoo at Moorpark College  
Moorpark, CA

**New Commercial Member**  
Krieger Publishing Company  
Melbourne, FL

*(Note: Director and/or CEO names are listed only where they have been included on membership application. Ed.)*



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AAZK National Conference

2008

Salt Lake City

## Second Call

### For Papers & Posters

**Deadline for abstracts:** 1 May 2008

**Deadline for papers:** 15 July 2008

Our guiding theme for the 2008 conference, "*Elevating Animal Care*", will focus on concepts that highlight **professionalism**, **creativity** and **initiative** in the realm of conservation, education and animal husbandry. Animal care professionals from all related fields are encouraged to submit high quality, original topics for consideration. Abstracts will be accepted for three presentation types:

#### ◆ **Papers**

Standard papers typically represent a summary of innovative techniques, achievements or approaches to animal care, welfare, conservation, education or research. Authors will be expected to give a 15-minute presentation on the relevance and practical application of their topic.

#### ◆ **Posters**

Accepted posters will be displayed during the conference, therefore the topic should be suitable for visual presentation. Authors will discuss their work with conference delegates during the designated poster presentation session.

#### ◆ **Workshops**

Workshops allow practical presentation and discussion of concepts relevant to animal care professionals. Workshop organizers should outline a list of group leaders, a summary of the theme & significance, format of discussion, expected number of participants and length of workshop.

Abstracts should be no longer than 300 words and should include in detail the significance of the topic being presented along with results, conclusions and benefits of the work described. Poorly written abstracts, those that do not contain proper information or do not otherwise meet submission criteria will not be considered.

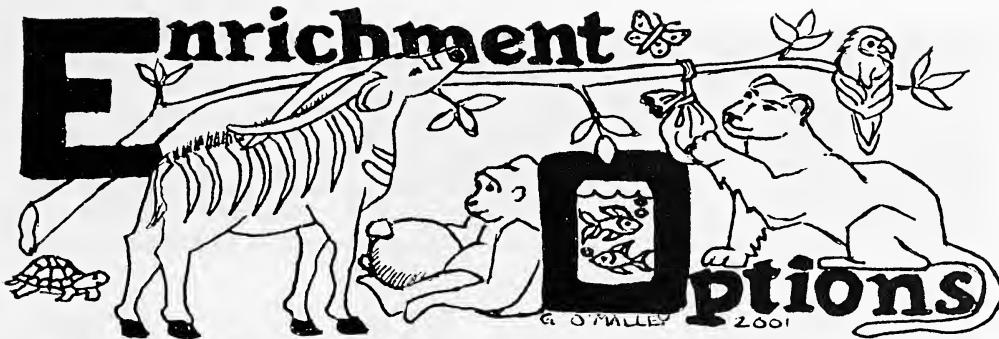
All abstracts should include the following information:

- Full name of presenter & co-authors
- Institution/Affiliation
- Position or title
- Title (specify paper, poster or workshop)
- Short bio of yourself for introduction
- A/V needs
- Contact information, including email address

Submit abstract by **1 May 2008** in Microsoft Word via email to [utahaazk@hoglezoo.org](mailto:utahaazk@hoglezoo.org). Authors will receive an email confirmation upon receipt of their abstract. Authors will then be notified regarding acceptance by 1 June 2008. All final and complete papers must be received by 15 July 2008 in order to be included in the program.

For more information, please visit our website [www.utahaazk.org](http://www.utahaazk.org)

You can also contact us at: Utah Chapter AAZK 2600 Sunnyside Avenue Salt Lake City, UT. 84108, (801) 584-1784 Email: [utahaazk@hoglezoo.org](mailto:utahaazk@hoglezoo.org)



EO Editor - Rachel Daneault, Disney's Animal Kingdom

## Asiatic Black Bear Enrichment Program, 2007 Lincoln Park Zoo, Manitowoc, WI

By Elizabeth Gass, Summer Zoo Intern  
Lincoln Park Zoo, Manitowoc, WI

Traditionally, municipal zoos work with limited full-time personnel and possess little or no resources for performing enrichment programs. Lincoln Park Zoo was founded in 1935 and the facility has been upgraded several times over the years. The last major renovation took place in 1991 beginning a transition from concrete edifices to exhibits that create more natural settings for a wide variety of animals. The newest addition was an aviary that opened in June 2007. To embrace progress, my project during the summer of 2007 was to provide enrichment opportunities for the Asiatic black bear (*Ursus thibetanus*), also known as the Tibetan or Himalayan black bear, in addition to learning more about the care and maintenance of all the zoo animals and public education.

The Asiatic black bear is a medium sized, sharp-clawed, black-colored bear with a distinctive white/cream "v" marking on the chest. It is a close relative to the American black bear (*Ursus americanus*), but has a higher intelligence level making Asiatic black bears more dangerous. The geographic range is commonly Iran to Japan with habitats in higher altitude brush and moist deciduous forests. They are good swimmers and tree climbers constructing nesting platforms made of leaves and broken or bent branches. They grow approximately 130 to 190 cm in length. A male commonly weighs between 110 and 150 kg and a female weighs between 65 to 90kg. The bear's life span is around 25 years in the wild and 33 years in captivity. The feeding strategy is omnivorous with mass variety consumption of fruit, berries, grasses, seeds, nuts, invertebrates, honey and meat. Meat composes a small portion of the diet.

The current black bear exhibit needed work so that enrichment opportunities could take place. Located in the exhibit was a 8' x 20' x 6' deep pool for the bears to swim and play, logs that were placed in various locations within the exhibit, and stumps that were left cut about 8 feet in the air. Enrichment was implemented through a limited number of special events using the bear's diets as a means for them to find "treats". Behaviorally, these bears lounged and paced around the exhibit. In light of current conditions, four planning sessions took place between the Zoo Board, the Zoological Society, and Zoo staff to discuss updates to the bear exhibit and plans for an enrichment program from January to April 2007.

As a summer intern, I proposed the project dealing with the Asiatic black bears to the Director of Parks and Recreation and the Curator of Animals. With the guidance of the Curator of Animals, I was able to establish an enrichment routine and integrate improvements to the exhibit. The main behavior goal for the bears was to stimulate and make their environment 'enriching'. My proposed enrichment plan consisted of environmental, dietary, novel, and social categories. Environmentally, I decided to build a sturdy jungle gym with deck brush handles attached for rubbing, construct a firehose hammock that hangs underneath the jungle gym, add a tractor tire hammock, create a sandbox area, and re-establish logs for climbing and/or clawing. My rationale for a jungle gym was to allow the bears to be more active and experiment with their environment.

The Milwaukee County Zoo aided with this project by providing me details for their bear exhibit. The jungle gym was constructed out of cedar logs and the dimensions are 7 ft. by 5 ft. with extending ladders on both 5 ft. sides. Dietary enrichment deals with foraging for edible items and making the animals do the work for their food instead of placing it in front of them. Different pastes were used and hidden within the habitat. Berry paste was made with berries, Jell-O® and oatmeal then chilled overnight. It was then hidden in or under logs for the bears to find. Another dietary enrichment idea I had involved popsicles. Researching the literature on these bears I found that fruit, veggies, or fish that were frozen block forms of ice were intriguing to these animals. This activity appeared to be a favorite of the bears and was used extensively within the exhibit. Other dietary possibilities included Jell-O® treats, cooked eggs, or raw eggs.

Social or training enrichment consisted of sound and scent devices while novel or manipulable enrichment included placing barrels in the yard, putting bowling balls in the exhibit to move, placing plain blocks of ice in the pool, as well as hanging a firehose for the bears to play with, and rearranging the logs. For social enrichment, lemon and lime juice, wolf fur, catnip, ginger, and vanilla were used for olfactory stimulation. These items were placed randomly around the exhibit for the bears to hide. Items that the bears would not consume were chosen in order for there to be a more definite difference between dietary and social enrichment. Generally, the female bear was the first one to find all the items and the male generally followed her around. However, after the enrichment program had been in place for a while, the male bear would look for items on his own. Firehose animals and rings were constructed to provide novel enrichment. Basically, the firehose was woven into a general animal shape and into a ring and placed in the exhibit with the bears. Both bears were very active in this enrichment activity and would move their "claimed item" around the exhibit in order to keep the other bear away.

The 246 Rule, borrowed from Utah's Hogle Zoo\*, was used to apply black bear enrichment as a structural enrichment regulation. Every two days an enrichment practice was carried out with the exception of environmental practices for no more than two consecutive days. Additionally, enrichment items were not used more than four times a month. To involve visitors, a sign indicating the date and time of enrichment was placed outside the exhibit. A devised animal enrichment log was used to record the date, enrichment item/use, and the description/comments each time. However, before enrichment could begin all procedures were proposed to the Curator of Animals and it was recommended that an enrichment evaluation be filed. As for documentation of the environmental enrichment, behavioral documentation was taken before and after to tell if the enrichment was effective.

In conclusion, before the program began the Asiatic black bears would lounge around and not maintain a consistent level of activity. Essentially, they would pace back and forth, lie on the logs, or lie in the den area where visitors barely could view them. After implementing this program, the bears would maintain a consistent activity level with habitual behaviors such as foraging and climbing. During enrichment activities the female bear would search for the items and the male bear would follow her. The male bear participated on his own after a few enrichment activities. Also, the female bear became more outgoing and less submissive to the male bear. For example, when ice blocks were given as an enrichment item she would not allow the male bear to take hers.

After numerous hours of watching the bear's behavior, the staff and I believe the project was successful. Both bears still lay around, however the time spent doing so has been minimized because of the new enrichment practices. The bears seem to enjoy searching for the items and participating in the activities and are standing more upright which is a normal behavior in their natural habitat. Many visitors like seeing the bears participate in the activities and have commented on their "new home". Overall, it was an outstanding experience and everything has been left in place for enrichment to continue and has even sparked the staff at Lincoln Park Zoo to start enrichment programs with other animals at the facility.

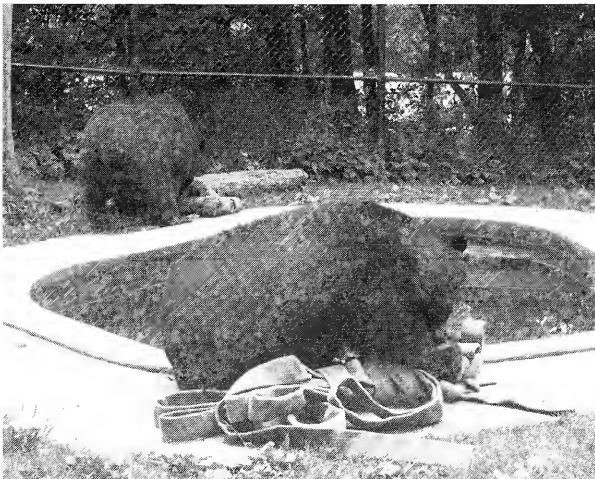
\* Enrichment Notebook Third Edition. Produced by AAZK, Inc. Enrichment Committee. Copyright 2004 American Association of Zoo Keepers (AAZK), Inc. ISBN: 1-929672-11-X. Chapter 4 - Enrichment Forms.

The Asiatic black bears testing out the newly established jungle gym.



The Asiatic black bears playing with the firehose hammock added to the jungle gym.

The female bear (in front) searches through the firehose "animal" by pulling it apart. In back, the male bear smells and moves around the firehose ring.



*(Photos provided by the author)*

*(Ideas appearing in this column have not necessarily been tested by the editors for safety considerations. Always think ahead and use good judgement when trying new ideas. You are invited to submit material for the Enrichment Options Column. Look in the January 2004 issue of AKF for guidelines for articles acceptable for this column's format or contact the editor at [akfeditor@zkscoxmail.com](mailto:akfeditor@zkscoxmail.com) for a copy of the guidelines. Drawings and photos of enrichment are encouraged. Send to: AKF/Enrichment, 3601 SW 29th St., Suite 133, Topeka, KS 66614-2054, USA. Eds.)*

## **Get Involved!**

The **AAZK National Enrichment Committee** is seeking **new members** to join our team!

We are looking for enthusiastic, professional keepers with a specialized interest in enrichment theory, techniques and application to help drive the activities of this fun, interactive group. Creativity, forward-thinking and innovation are key attributes for committee members. Your ideas can help create our future!

The Enrichment Committee actively participates in the AAZK Annual Conference, is responsible for the Enrichment Options column in the Animal Keeper's Forum and contributes content to the AAZK website. We also work on specialized projects that further our mission of providing quality enrichment resources to the professional animal keeper.

### **Candidates Must:**

- Be a Professional Member of AAZK National
- Be a Full-time employee of a facility housing an animal collection
- Be directly involved in daily animal care.
- Have full institutional support for participation in committee projects and conference attendance
- Have access to a computer

### **Desired Qualifications:**

- Proven leadership in enrichment-related activities.
- Creative, productive with good follow-through.
- Experience with public speaking and a willingness to participate in open forum discussions at conferences

**If interested, please send a letter of intent and a résumé via e-mail to:**

Amy Burgess, Chair, AAZK Enrichment Committee  
[Amy.E.Burgess@Disney.com](mailto:Amy.E.Burgess@Disney.com)  
407-938-2824

**DEADLINE for Applications is FEBRUARY 10, 2008**

Upon receipt of résumé, a Memorandum of Participation, outlining the time commitment, will be sent to the applicant to be signed by the candidate's supervisor, as a show of institutional support.

# Hand-Rearing 1.1 Asian Small-clawed Otter

## *(Amblonyx cinereus)*

21 February 2007 through 2 July 2007

By Terry D. Webb, Curator of Mammals  
Miami MetroZoo, Miami, FL

### Introduction

Captive conditions and husbandry at times are challenging for species that require extreme privacy for successful reproduction. Infanticide and/or cannibalism have been observed in captive and wild animals, including carnivores.

Hand-rearing is not recommended as an elective process for various reasons. In almost all cases, the philosophy of the Association of Zoos and Aquariums (AZA) managers is for the offspring of captive-born species to be parent-reared. At times this goal cannot be reached. When an animal requires hand-rearing it is very important to have a clear and well-planned course of action for all staff. The dietary, medical, and social needs of the species must be included in the hand-rearing protocols.

In 2005 the Asian Small Clawed (ASC) Otter Species Survival Plan® recommended that a pair of ASC Otter breed at Miami MetroZoo, in Miami, FL, United States. Both the sire and the dam were parent-reared. The sire was two and the dam was five years old at this time. The pair had not had an opportunity to breed before this recommendation.

In November 2005 they produced their first litter and the pups were missing and presumed cannibalized on Day Two after delivery. They produced another litter in May 2006 and again on Day Two the pups were missing. Management and protocols were discussed following this litter. It was decided that strict visitation and husbandry restrictions should be put into place approximately two weeks prior to the expected delivery date.

In August 2006 a third litter was born and cannibalized on Day Two. At this time management made the decision that any further litters with this pair would be pulled for hand-rearing as soon as the birth occurred. On 21 February 2007, this pair had two pups and they were pulled for hand-rearing as soon as they were discovered.

### Initial Discoveries

The pups were clean and dry at the time of discovery. Both pups had bite wounds to the head, muzzles, abdomen and the female had blood in her urine. They were both given a complete physical evaluation and determined to be in good health. The umbilicus area was cleaned with betadine solution, they were given antibiotic injections, confirmed sex, and placed in an incubator at a temperature of 26.6° – 32.2°C (80°–90° F). The pups had a hard time adjusting to the flow of milk from the nipple and aspirated formula for approximately eight days before they suckled well.

*At right: One-day-old Asian Small-clawed otter being bottle fed.*



## Medical Treatment

### Drug

Ceftiofur PO

Baytril SQ

Fluids SQ

Pedialyte® PO

Feline distemper vaccine at Day 53

Feline rhinotracheitis vaccine Day 64 and 70

Calicivirus vaccine Day 64 and 70

Panleukopenia vaccine Day 64 and 70

Canine distemper Day 70 and Day 97

Rabies vaccine Day 70

### Purpose

Preventive

Antibiotic

Hydration

Electrolytes for infants

Preventive

Preventive

Preventive

Preventive

Preventive

Preventive

## Diet

### Day 1-5

Esbilac® brand, ready to use canned formula for dog pups at ratio of 50:50 to water.

Feed every two hours.

3.0 ml of formula offered at each feeding.

2.0 ml of fat-free yogurt once a day to help curb diarrhea and aid in formula digestion.

A small latex marsupial nipple will be used until further notice.

### Day 6-8

Esbilac® changed to full strength.

Feed every 2 hours.

4.0 ml per feeding.

### Day 8- 21

Feed every 3 hours. 8.0 ml per feeding.

### Day 22 – 26

9.0 ml per feeding.

### Day 27 – 28

10.0 ml per feeding.

### Day 29 - 31

12.0 ml per feeding.

### Day 32 – 36

14.0 ml per feeding.

### Day 37 – 38

15.0 ml per feeding.

### Day 39

16.0 ml per feeding.

The nipple was changed to human premature infant type, and pups accepted well.

### Day 40 - 43

20.0 ml per feeding.

### Day 41

Number of feedings reduced from 7 to 6 per day.

### Day 44 – 46

22.0 ml per feeding.

### Day 47 – 50

24.0 ml per feeding.



One-day-old Asian Small-clawed Otter

**Day 51 – 84**

30.0 ml per feeding.

**Day 57**

Both exposed to live fish for first time in a pool. The male caught and ate 2 small fish and the female caught and chewed one fish, but did not consume.

**Day 60**

Offered IAMS® cat food soaked in formula. The male ate a few pieces and the female chewed and not did consume.

**Day 62**

The nipple was changed to high flow nipple, and pups accepted well.

**Day 85**

Number of feedings reduced from 5 to 4 per day.

**Day 96**

Number feedings reduced from 4 to 3 per day.

**Day 110**

Number of feedings reduced from 3 to 2 per day.

**Day 114**

Beginning to lose interest in bottle and showing more interest in solids.

**Day 124**

Number of feedings reduced from 2 to 1 per day.

**Day 130**

Last bottle given today, weaned.

## **Growth Progress**

**Male**

Birth weight = 55.5 grams.

Weaning weight = 2374 grams.

Total gain from birth to weaning = 2318.5 grams.

Average monthly gain from birth to 6 months = 508.1 grams.

Crown-rump length at birth = 9.0 cm.

Crown-rump length at 1 month = 16.0 cm.

**Female**

Birth weight = 52.6 grams.

Weaning weight = 2336 grams

Total gain from birth to weaning = 2283.4 grams.

Average monthly gain from birth to 6 months = 491.2 grams,

Crown-rump length at birth = 8.5 cm.

Crown-rump length at 1 month = 17.5 cm.

## Developmental Notes

### Male

Day 17 R eye open.

Day 20 teeth erupting.

Day 33 L eye beginning to open

Day 35 both eyes completely open.

Day 38 no longer require supplemental heat source, thermo-regulating well.

Day 55 first exposure to water, 2 inches deep in small pool, and had no aversion to water and played in water for 30 minutes.

Day 57 first live fish caught and eaten.

Day 59 no longer need to stimulate, urination and defecation are normal.

Day 91 canine teeth are erupting.

Day 92 eating smelt, live fish, and cat food well.

Day 103 given access to deep water pool (~2.4 m) and did well.

Day 130 weaned.

### Female

Day 20 teeth erupting.

Day 34 both eyes beginning to open.

Day 35 both eyes completely open.

Day 38 no longer require supplemental heat source, thermo-regulating well.

Day 55 first exposure to water, 2 inches deep in small pool, and had no aversion to water and played in water for 30 minutes.

Day 57 caught first live fish but did not consume.

Day 59 no longer need to stimulate, urination and defecation are normal

Day 70 ate first live fish.

Day 91 canine teeth are erupting.

Day 92 eating smelt, live fish, and cat food well.

Day 103 given access to deep water pool (~2.4 m) and did well.

Day 130 weaned.

## Socialization

Fortunately for these two pups they have each other for companionship during the hand-rearing period. We believe this was beneficial to their well-being and contributed to their physical and mental development. They were definitely bonded to the keeper staff, but they played with each other and competed for space in their enclosure when they were not being handled. They are not planned to be introduced to any adults at this time.

## Conclusions

Hand-rearing is difficult, challenging, and labor-intensive, especially during the early stages of the process. The most challenging aspect of this hand-rearing process was getting the animals to swallow and not aspirate milk. The animals were very anxious and drank too fast and milk was passed back through the nasal passages for the first eight days. After this problem passed, the pups grew fast, and did well with their natural behaviors of swimming, diving, and catching live prey.

## Acknowledgements

The Zoological Supervisor, Randall Tucker, Senior Keeper, Tom Condie, keepers, Rue Hewett and Jennifer Lindsley all did a very good job with following protocols and providing guidance and care for these otter pups. The senior veterinarian, Dr. Christine Miller, provided clear diet, social, and medical advice throughout the process. Everyone deserves thanks and appreciation for their efforts.



## BOOMER BALL® CONTEST

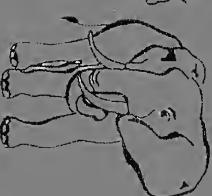
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Purchase a minimum of \$600.00 of Planet Balls® and/or Ice Floats (excluding shipping). Take your 20 best photos or video of your new Boomer Ball® purchases being used by an elephant, rhino, tiger or polar bear. *Entry instructions on back side.*

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Purchase a minimum of \$350.00 of Jungle Balls® and/or Large Bobbins (excluding shipping). Take your 15 best photos or video of your new Boomer Ball® purchases being used by a lion, tiger, bear, gorilla or ape. *Entry instructions on back side.*

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- Winner's List: To receive a list of winners, send a self-addressed, stamped envelope to Boomer Ball®, P.O. Box 83, Grayslake, IL 60030.
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- Prize Description: The winner will receive products listed on winner's list. No substitutions allowed.
- Winner's videos, photos, sketches and ideas may appear on our website or in advertising promotional items where thousands will see your videos, photos, sketches and ideas.
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All contest videos, photographs, sketches and ideas  
must be received by June 30, 2008

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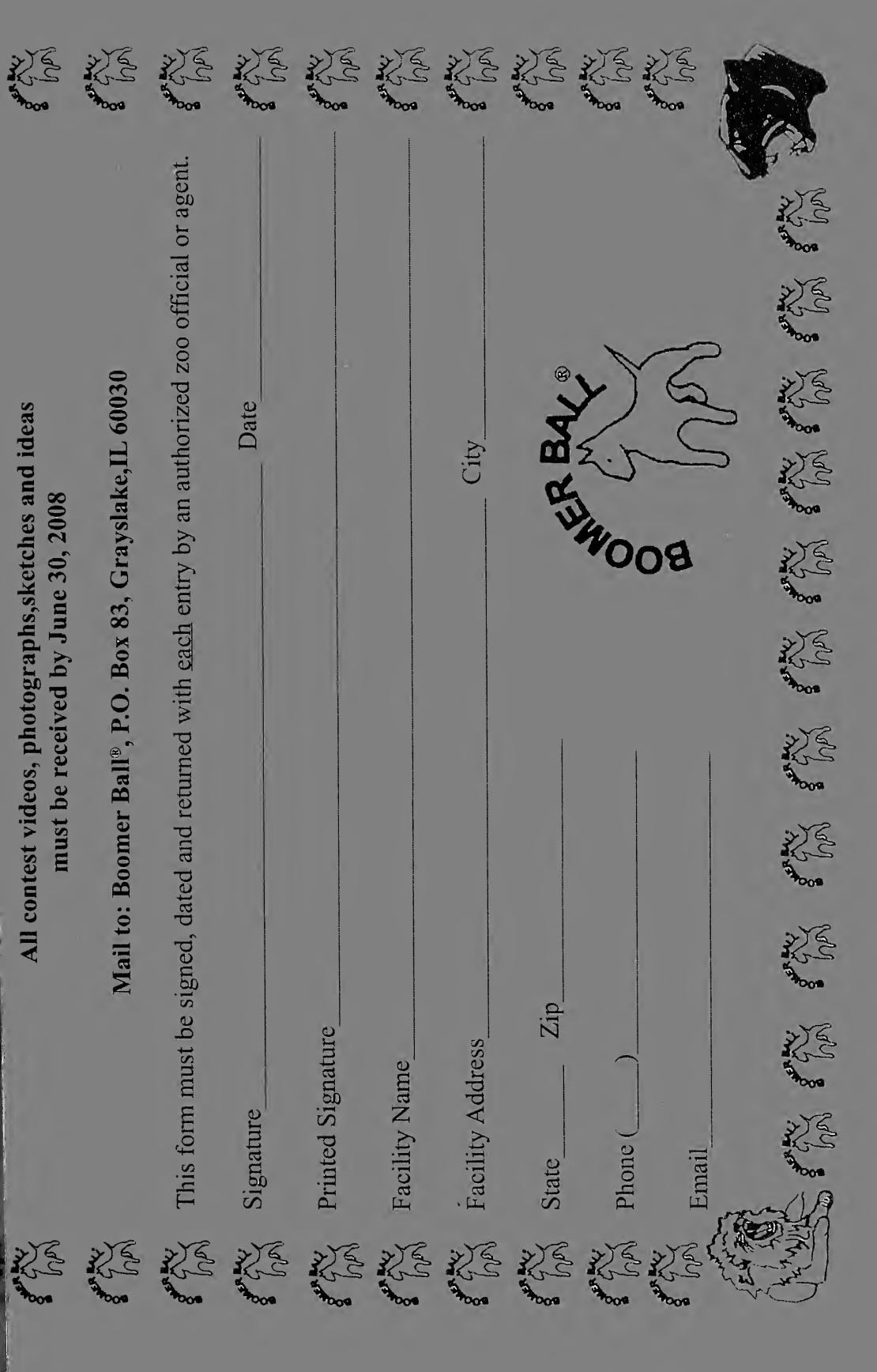
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# The Animal Training Committee Presents



*Training Tales Editors – Jay Pratte, Zoo Atlanta;  
Kim Kezer, Zoo New England; and Angela Binney, Disney's Animal Kingdom*

## **Hand Injection Training a Margay (*Leopardus wiedii*)**

*By Carolyn Mathews-Borak, Carnivore Department  
Houston Zoo Inc., Houston, TX*

### **Training goal:**

Keepers at the Houston Zoo wanted to condition 1.0 Margay to voluntarily enter a squeeze device and remain calm as the space was reduced to access the hip area for an injection. Once this goal was accomplished, injection training was the final goal. These methods were intended to decrease the occurrence of stress-like behaviors associated with medical procedures, especially sedation.

### **Important steps:**

1. Write a shaping plan and get supervisor approval/input.
2. Have the facilities staff build a Margay sized replicated squeeze (We simply used a piece of lexan [1/4" thick] attached to metal rods which stick through the wire so the trainer can pull or push the squeeze to the desired distance. It was then mounted on wheels so the panel could be slid in and out. This was done so the Margay would remain comfortable as the area between the squeeze panel and wire mesh became smaller as the training progressed. We used clear lexan to allow the Margay to see through it.)
3. Place the squeeze panel in one of the holding cages to begin habituation.
4. Target the Margay into the squeeze. (Target training of the margay was completed previously.)
5. Reinforce him for holding the position with hip next to the cage wire (his hip became more accessible after several approximations of moving the squeeze in closer to the cage before the training session. He was reinforced for being calm while in the squeeze.)
6. Desensitize the animal to the presence of the syringe (a pole was used first since we were unsure how the Margay would react and it is safer to have your hands away from the cage incase he tries to reach out of the cage with his paws and we later introduced a hand-held syringe). Hold a pole next to the cage and reinforce calm behavior. Approximate to sticking it into the cage and then touching the Margay's hip.
7. Hold pole to hip for 2-5 seconds
8. Touch with increasing pressure with the pole then use a capped syringe and lastly move on to a syringe with a blunt tipped needle.
9. Finally touch harder with the blunt tip needle in a quick jab like you would when giving a real injection.



### Timeline Used:

This behavior was trained in three months.

### Tips you learned a long the way:

- Train with people around, or without so you are prepared for distraction or absolute quiet. You want the cat to be able to do the behavior no matter what is going on around you. Include anyone else in the training that may help or actually give the injection.

- Once the behavior was reliably performed using constant reinforcement, we found it helpful to use a variable schedule of reinforcement. For example

we may ask the cat to repeat the behavior twice, bridging each time for a correct behavior, and then give the food reward. Varying the reward schedule helps prepare the cat to line back up if you only get a partial dose in the first time.

- This margay was reinforced with his regular diet during the training sessions. Occasionally he was given a jackpot which was either a larger amount of his regular diet or a preferred food item that is not received on a routine basis. Some of the jackpot items included egg, goat milk and mice.

### ATC Comments:

*This Training Tale illustrates the use of environmental manipulation to aid in training. This is not to confuse traditional use of a 'squeeze' device with positive reinforcement training. In this case, the 'squeeze' aspect of the crate allows keepers to reduce the size of the crate enough to access the hip of the margay; however, they used successive approximations and positive reinforcement to achieve the goal (rather than luring or trapping the animal in the crate and hastily pulling the walls in around it).*

*The space can be reduced as a training approximation, either before the animal enters or after, depending on the design of the moving wall. If it can be moved prior to the animal entering, this eliminates the need to desensitize the cat to the movement aspect. Instead the cat can simply be trained to enter the restricted space voluntarily and remain calm after it is already comfortable with the original position of the wall (wide versus narrow).*

*Because this training involved two goals that are both potentially aversive, it is important to use successive approximations and to only train one aspect of the behavior at a time. The 'entering the crate and remaining calm' part should be reliably performed on a variable schedule of reinforcement prior to introducing the injection training. Also, if the animal is expected to position its body in a particular way (e.g. standing or lying parallel with the mesh without the aid of the wall), this aspect should be trained after the crating behavior is reliable, but before injection training.*

*The Houston Zoo keepers have nicely shown that operant conditioning techniques can be used with traditional restraint devices to create a 'kinder, gentler' method of achieving medical goals. The use of successive approximations and positive reinforcement allows keepers achieve the same goal in a much calmer fashion (than forced restraint). With continued training, the keepers may find the use of the 'squeeze' aspect of the crate to be unnecessary. The cat may be conditioned to line up close to the mesh and lay down calmly while an injection is administered.*

*You are invited to submit material for the Training Tales Column. Look in the November 2006 issue of AKF for guidelines for entries acceptable for this column's format. Drawings or photos of training are encouraged. Contact Jay Pratte at [jpratte@zooatlanta.org](mailto:jpratte@zooatlanta.org) for more details or to submit an entry.*

## 2008 Indianapolis Prize Finalists Named

The six finalists for the Indianapolis Prize have been selected and include: Iain Douglas-Hamilton, Rodney Jackson, K. Ullas Karanth, Laurie Marker, Roger Payne, and George Schaller. Nominated by their peers, these heroes of animal conservation were chosen for their outstanding achievements on behalf of endangered species across the globe.

The Indianapolis Prize was initiated by the Indianapolis Zoo as a significant component of its mission to inspire local and global communities to celebrate, protect, and preserve our natural world through conservation, education and research. This biennial award brings the world's attention to the cause of animal conservation and the brave, talented and dedicated men and women who spend their lives saving the Earth's endangered animal species.

"The Indianapolis Prize recognizes animal conservationists who have committed their lives to ensuring the survival of some of our planet's most marvelous creatures," said Michael Crowther, CEO of the Indianapolis Zoo, the organization that initiated the animal conservation award. "These are people who are accomplishing real conservation victories."

The Prize Jury will determine the winner for the 2008 Indianapolis Prize, who will receive \$100,000 and the Lilly Medal at the Indianapolis Prize Gala presented by AES, held September 27, 2008, in Indianapolis. The Indianapolis Prize was first awarded in 2006 to Dr. George Archibald, co-founder of the International Crane Foundation.

- Iain Douglas-Hamilton, Ph.D.: (Save the Elephants) - As president of Save the Elephants, Douglas-Hamilton's pioneering study of the social behavior of wild elephants four decades ago in Tanzania formed the basis for all subsequent studies.
- Rodney Jackson, Ph.D.: (Snow Leopard Conservancy) - Jackson, director/founder of the Snow Leopard Conservancy, did groundbreaking radio-tracking studies of snow leopards and is dedicated to making native peoples into key players in leopard conservation.
- K. Ullas Karanth, Ph.D.: (Wildlife Conservation Society) - Senior World Conservation Society conservation scientist and premier tiger expert, Karanth has championed the cause of tigers through his groundbreaking work in India, Thailand, Malaysia and Indonesia.
- Laurie Marker, Ph.D.: (Cheetah Conservation Fund) - Marker, founder/executive director of the Cheetah Conservation Fund, has led a conservation program from humble beginnings in rural Namibia to an unparalleled model for predator conservation.
- Roger Payne, Ph.D.: (The Ocean Alliance) - Founder of The Ocean Alliance, Payne has devoted more than 40 years to the study and protection of whales. His whale song recordings helped launch the "save the whales" movement.
- George Schaller, Ph.D.: (Wildlife Conservation Society) - George Schaller, Ph.D., the world's preeminent field biologist, has traveled across the globe to work with a variety of species and has inspired generations of scientists.

Prize Honorary Co-Chairs include: actor Harrison Ford, actress Jane Alexander, Senator Richard G. Lugar, conservation supporter Roger Sant, AES Corporation founder, author Carl Hiaasen, philanthropists Christel DeHaan and Bren Simon, and Sidney Taurel, chairman and chief executive officer, Eli Lilly and Company.

Prize Jury members include Dr. William Conway, senior conservationist, Wildlife Conservation Society; Dr. Tracy Dobson, professor of fisheries and wildlife services, University of Michigan; Julie Packard, executive director and vice chairman, Monterey Bay Aquarium; Dr. Stuart Pimm, the Doris Duke professor of conservation ecology in the environmental sciences and policy division, Duke University; Dr. Mark Stanley Price, chief executive, Durrell Wildlife Conservation Trust; Dr. Steven Paul, executive vice president for science and technology, Eli Lilly and Company and president of Lilly Research Laboratories; Paul Grayson, deputy director and senior vice president of conservation and science, Indianapolis Zoo; and Myrta Pulliam, director of special projects, Indianapolis Star, past chair of the Board of Trustees, Indianapolis Zoological Society, Inc., and chair of the Indianapolis Prize.

# The Role of Facilities Departments in Environmental Enrichment

By Beth Rich, Animal Care Supervisor

Racine Zoo, Racine, WI

Video Librarian & Workshop Instructor

*The Shape of Enrichment*

From 1-3 October of 2007, I was fortunate enough to attend and moderate roundtable sessions at the Aquarium and Zoo Facilities Association annual conference hosted by the Point Defiance Zoo and Aquarium in Tacoma, WA. The Aquarium and Zoo Facilities Association, [www.AZFA.org](http://www.AZFA.org), is a wonderful professional organization of skilled workers who truly keep our zoos and aquariums functioning and assist animal care departments with keeping our animals happy and healthy.

The subject of my roundtable was the role of facilities departments in zoos and aquariums enrichment programs. The conference organizers and I felt this was a valuable topic because we've encountered frustration from both keepers and facilities workers on the subject of enrichment. I wanted to have a discussion about how facilities departments fit into a zoo or aquariums enrichment program. I did not want the discussion to desolve into a complaint session about how keepers are a pain in the rear, so I had several questions to help guide the discussion.

First, I defined environmental enrichment. I then shared that enrichment is required by the USDA for all non-human primates and is carefully looked at during an AZA accreditation process. Enrichment improves animal welfare and also meets visitor's expectations. So how does a facilities department fit into enrichment? Facilities staff are usually the ones who build, install and maintain some of our more complex enrichment structures or items. I took copious notes and below are the salient points.

1. Bring your dream, but be prepared to have it modified. The facilities workers are the ones who know if that thing you want to build will be structurally sound, if it can actually be mounted into the wall, how deep you can actually dig the pool, etc.
2. Understand they have demands from other departments, too. Your enrichment project probably is NOT an emergency. If they tell you that the zoo director has them working on a project, don't be surprised if your enrichment project gets put on the back burner. But it's ok to remind folks.
3. Bring a plan or a diagram to help facilitate communication. One of the great things about publications like *Animal Keepers' Forum* or *The Shape of Enrichment* is many of the articles have drawings and designs of the enrichment item. Bring that with you to share when you talk to your facilities crew.
4. Be prepared to answer two important questions: Do you have a budget for the project? and What's the timeline? As a frontline keeper, you may not have the answers to those questions, but your lead or supervisor may be able to help you.
5. Know your limits and don't attempt something you are not qualified to do. If your facilities department cannot get to your project right away and it's a large, complicated project, such as building a structure on exhibit, and then you try to do it on your own, they will not be happy. In the end, they will be the ones who have to modify and secure a potentially dangerous structure.

One of the questions I posed to the group was "Should facilities departments be included in the enrichment approval process?" Now I know some of you are saying, "We have too many people

involved in the approval process as it is! I don't want to add another layer of review." The resounding response was yes if they were going to be involved. If it's a matter of getting a new food item or purchased toy approved, they didn't feel the need to be included. But if they were going to be building climbing structures, adding anchors into a wall or building a complex toy, then they wanted to be included in the process. On the heels of that question was the response to keepers purchasing materials that facilities departments needed to approve. Animal care staff should not purchase an untried material until facilities has had a chance to review it. They might also be able to find it cheaper!

I asked if their home institutions would be open to having facilities departments do some kind of enrichment building workshop with their keepers. Rather than having to build a PVC feeder for a keeper and then do the same thing for another keeper six months later, teach the keepers how to do it themselves. Most participants responded favorably, but a few said they might have union issues.

Other comments that the group shared were the importance of learning the language of facilities. I asked how keepers could learn and they all recommended assisting with a project. Now you may not have the time to help with large projects, but if they are doing something for you, make a point to help and learn.

Keep it simple. Frustration was expressed that keepers would come up with these "crazy ideas about remote control this or motion-activated that." While interesting to animal care, these projects can be a nightmare for facilities workers. Go back to what behavior you want to encourage and if there is a simpler way to go about achieving that behavior; facilities would much prefer you do that.

Acknowledge the work. I just had two of the facilities workers at the Racine Zoo volunteer to build our coatis a resting platform in their new exhibit. I've thanked them and will be taking photos of the coatis using the platform to give to them. Cookies work well too! Bridget Dedeke, Director of Facilities at the Houston Zoo, shared that animal care staff would occasionally bring an animal ambassador to the facilities morning meeting as another way to say "Thank You".

I shared information about safety of enrichment and did let them know that animal safety is ultimately the keeper's responsibility. But it is always good for everyone involved in the project to ask themselves: Can this break? If it does break, are the pieces dangerous? Can the animal use it to escape? Can it damage the enclosure? Are the materials non-toxic, etc.?

But the underlying theme of all the roundtable discussions was COMMUNICATION. It's important that we talk to each other, understand the realities of facilities time constraints and work together.

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# REACTIONS

## A Question and Answer Forum for the Zoo Professional on Crisis Management

By William K. Baker, Jr., Director

Abilene Zoo, Abilene, TX



### Question

What type of advance preparations do you recommend for free-contact training work with dangerous animals?

### Comments

One of the most challenging aspects of our profession is the management of dangerous animals in captivity. Taking that a step farther, free-contact training definitely raises the bar a step, not only in terms of safety but success as well. To be sure there are variations of this training style and it is the source of much discussion among peers. Still, the basic tenant of this style is a constant, you are in direct physical proximity to the animal that you are working.

In other words, free-contact training is not a crisis management situation. It is, however, a dangerous animal situation that could become a crisis if there is an error in training judgment. After having been an animal trainer myself for many years, I would like to believe that I can see both sides of this argument. Free-contact training is extremely effective; unfortunately it's also extremely dangerous.

Having said all of this, the question should be tempered with the comment that every zoological facility and its staff take a different approach not only to the training aspects of their program, but the physical training of their staff members as well. With these thoughts in mind, I do believe that it is possible to make some general and species-specific recommendations.

### General Recommendations

- Staff members who are selected and/or hired as trainers should have a stable temperament and demeanor.
- Trainers and/or handlers should have significant training in the workplace and specifically with the species they are working.
- At all times staff members should work in pairs.
- During training sessions a fellow trainer should act as a back-up.
- The back-up should always be within physical proximity to the primary trainer during sessions, (at least 5 meters).
- Only staff members who are involved in the program should be granted access to the nighthouse, barn, and/or training area on exhibit during training sessions.
- Only staff members actively involved in managing or training should be provided key access to an area with dangerous animals.
- Maintenance workers should be accompanied at all times by a member of the staff, specifically one of the trainers in the program.
- When servicing the exhibit and/or nighthouse, trainers should be in line of sight of each other at all times.
- If either the primary trainer or back-up are unavailable or not in top form due to illness, stress, or anything that potentially distracts from the session, it should be delayed or cancelled.

- Training and/or work areas should be well lit.
- All staff members should be equipped with radios.
- A substantial first-responder class first aid kit should be on hand or easily accessible.
- Emergency exhibit repair equipment should be on hand in the Area.

#### ***Free-contact for Felids***

- Choose your training area carefully with an eye towards reducing distractions such as sharp or high-pitched noises.
- A sign denoting “Training session in progress” should be considered a plus when decreasing noise or potential interruption by passersby
- Utilize a harness if possible as opposed to a leash for walking behaviors. However, large pantherids may not be suitable for harnesses and a heavy duty collar and lead may be the better choice.
- Also, a harness can be an asset in early stages of training. The earlier an introduction of harness and lead, the greater the degree of success and as a consequence, the level of control as the specimen advances in age.
- If possible, I recommend training in a large enclosure to ensure a higher level of safety and negating the need for a lead.
- Always keep your body at a level higher than the felid. Lowering your physical position lower to the ground in proximity to the cat may trigger the predator-prey response.

#### ***Free-contact for Elephants***

- Be aware at all times of the physical location of all animals as well as your proximity to other trainers that are acting in the role of a back-up.
- Always be cognizant of your surrounding environment. Essentially, you need to be not just three steps ahead when processing environmental factors, but closer to ten steps ahead. Failure to anticipate can have undesirable results. This is especially true when taking elephant walks. Expect the unexpected at every step, but temper it with calm professionalism, not paranoia.
- While this may sound somewhat abstract in nature, cultivate a symbiotic relationship with your animal charge. Being able to read each other is not only the mark of a good trainer, but a well-trained animal charge as well.
- Always be prepared to end a session if you as a trainer consider the situation is degrading. Remember you have nothing to prove, not even to yourself. A good trainer knows when to end on a high note, rather than demanding more or pushing for an unrealistic resolution. Conversely, if warning flags are starting to go off, remember you can always revisit the issue in a new session later in the day. Short version, know when to walk away.

#### **Final Comments**

Every trainer needs to find their own personal comfort zone. Remember that if you have a skill, pass it on to the next generation. At my last facility I had the privilege to work with a truly remarkable trainer. She has since left the States to work with Asian elephants in Australia and I have every confidence that she will pass on what she learns to the generation that follows her.

My best advice is to know your path, know yourself, and know your animals. It's really just that simple in the philosophical sense. Sounds somewhat Zen in nature, but as I have moved through my career path, I have discovered that in most cases animal behavior may be complex, but the solutions often are not. It's really a matter of perspective.

**Next Month:** You have often spoken about your free contact training experiences with felids, what have they taught you?

If you would like to submit a question for this column or have comments on previously published materials, please send them to AAZK, Inc., 3601 S.W. 29th St., Suite 133, Topeka, KS 66614 Attn: Reactions/AKF

*(About the Author: Since 1985 Bill has been active in the fields of science, zoology, and wildlife management. His education and experience include a B.S. in wildlife management and post-graduate studies in zoology, Lab and Museum Assistant, Shoot Team Leader, ERT Member, Large Mammal Keeper, Senior Keeper, and Zoo Curator at various zoological facilities. His area of research is crisis management in zoological institutions, which draws upon practical experience and training as a Rescue Diver, Hunter Safety Instructor, NRA Firearms Instructor, and Red Cross CPR/First Aid Instructor. Away from work he operates Panthera Research, which is a research and consulting firm.)*

## Great Offer for AAZK members from Polar Bears Int'l

Polar Bears International is making a very generous offer to all AAZK members to become members of PBI at no cost! This offer will be available for the next two years! The regular annual cost of a PBI membership is \$25.00 and includes their quarterly newsletter, so this is a great value for you. So, if you are interested in taking advantage of this opportunity, please email your name, complete mailing address and email address to:

Tiffany Mayo - [tiffanyvarga@hotmail.com](mailto:tiffanyvarga@hotmail.com)

If you do not have email access you may send your information to Tiffany Mayo, Cleveland Metroparks Zoo, 3900 Wildlife Way, Cleveland, OH 44109, Attn: PBI Offer. Tiffany is a member of the Greater Cleveland AAZK Chapter and has volunteered to put together a mailing database of AAZK members interested in taking advantage of this free PBI membership offer.

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# Conservation/Legislative Update

Column Coordinators: Becky Richendollar, North Carolina Zoo  
and Greg McKinney, Philadelphia PA

This month's column was put together by  
column co-coordinator Greg McKinney



## Fishing Ban Needed For Mediterranean Bluefin Tuna

Members of the international body responsible for the management of bluefin tuna in the Mediterranean Sea must agree to a moratorium on fishing for this imperiled species or risk the end of a valuable fishery.

WWF called on the International Commission for the Conservation of Atlantic Tunas (ICCAT) to support a multi-annual closure of the fishery for at least three years to give stocks a chance of recovery.

“A healthy Mediterranean bluefin tuna fishery for the future demands management measures based on scientific advice and strict enforcement,” says Dr. Sergi Tudela, Head of Fisheries at WWF Mediterranean. “But if fishing levels continue at the present rate there will simply be no tuna left to catch.”

Mediterranean bluefin tuna (*Thunnus thynnus*) — highly prized around the world, especially in Japan for sushi and sashimi — has been under increasing pressure from overfishing. Scientists have repeatedly raised concern that the stock is at risk of collapse, but ICCAT has repeatedly failed to act. Another season of massive overfishing and illegal activity this year has highlighted major management problems facing Mediterranean bluefin tuna. Under-reported and laundered catch, illegal sale of quotas, lack of monitoring and control are all hampering any kind of sound management, and putting Mediterranean bluefin under threat of imminent collapse.

“This year ICCAT has a unique opportunity to give this majestic species a fighting chance of survival,” adds Dr Tudela. “The choice is simple: moratorium today for a sustainable fishery tomorrow, or do nothing and fish this princely species to an untimely death.” *Source: WWF, 9 November 2007*

## Environmentalists Oppose Ruling on Endangered Hawk Species

A bird of prey found along North America’s northern West Coast warrants protection as an endangered species in Canada but not in Alaska, the U.S. Fish and Wildlife Service decided early in November. Environmental groups that sued the agency for protection for the Queen Charlotte goshawk (*Accipiter gentilis laingi*) called the decision bad science and a bad interpretation of federal law and vowed to return to court to have Alaskan birds protected. The quest to list the birds under the Endangered Species Act has been going on since 1994. The Fish and Wildlife Service’s latest response came after its previous determination denying protection was rejected in court.

Queen Charlotte goshawks are one of three subspecies that inhabit the Northern hemisphere, according to the listing petition. They’re found from Washington’s Olympic Peninsula to southeast Alaska south of Juneau. Queen Charlotte goshawks are 22 to 26 inches long. They have short wingspans and long tails that help them maneuver in forests. Feather guards protect their eyes from stray branches. They hunt relatively large prey. They are fierce defenders of nests and will attack wolves, bears and humans that stray close to their nests, according to the listing petition.

Logging of old growth forest is considered the main threat to the Queen Charlotte goshawks, said Noah Greenwald, a conservation biologist for the Center for Biological Diversity in Portland, Ore. “This is a species that hunts under the forest canopy,” he said. “Going in there and cutting down substantial amounts of trees is not something that would be conducive to its survival,” Greenwald said.

Owen Graham, executive director of the Alaska Forest Association, a timber trade association, praised the decision as one less worry for Alaska’s ailing timber industry. He said protections already in

place for the birds and that additional revisions are expected in the U.S. Forest Service management plan for the 17-million-acre Tongass National Forest.

The environmental groups took issue with the Fish and Wildlife Service determination that the Alaska and British Columbia ranges are distinct populations and therefore qualify for individual consideration. The agency concluded that it could support listing British Columbia birds as threatened or endangered. The same could not be said for the Alaska birds, given conservation measures in place in the Tongass, the world's largest temperate rain forest. Those measures include no-harvest status in substantial areas and guidelines for goshawk protection by loggers in the parts of the forest open for cutting.

Cummings said it was troubling that the agency would list only a portion of an imperiled population. It's a dangerous precedent that works to exclude as many areas as possible from the Endangered Species Act, he said. *Source: Associated Press, Dan Joling, 11 November 2007*

### **Zoo Urges Bush To Save Polar Bears**

Brookfield Zoo's three polar bears are popular attractions — massive beasts which, tossing toys and buckets into their exhibit pool, sometimes act like kids at the beach. But, zoo president Stuart Strahl said on Nov. 14, "We do not want zoos to be the only place where people can see polar bears."

A report by government scientists is predicting that two-thirds of the world's 22,000 polar bears (*Ursus maritimus*) — and all of those in Alaska — will disappear by 2050, mostly due to arctic ice cap melting caused by global warming. As Brookfield's bears frolicked behind them, Strahl and National Resources Defense Council official Andrew Wetzler urged the Bush administration to classify polar bears as a "threatened" species. That designation would require the government to develop a survival plan, including ways to address overall global warming and greenhouse gasses, said Wetzler. Under legal pressure by the council and other environmental groups, the Interior Department has agreed to consider the designation and is expected to rule in January.

Brookfield's bears were born in captivity but wild polar bears this summer saw a record reduction in their sea ice habitat. Over the last 30 years, sea ice on the Arctic Ocean has shrunk by more than one million square miles, or about 17 times the size of Illinois, according to the NRDC. "If we don't take action now, our generation, and our children's generation, will be the last generations to see polar bears in the wild," said Wetzler.



*Ursus maritimus*  
(USFWS Photo)

Some say that putting the bears under the Endangered Species Act would be premature. "The listing of a currently healthy species based entirely on highly speculative and uncertain climate and ice [forecasts] . . . would be unprecedented," Alaska

Gov. Sarah Palin wrote in a letter to the Interior Department. Alaska officials also say oil and gas operations, current conservation plans and bear hunting for food by native Alaskans also could be threatened under the proposed polar bear designation. *Source: Sun Times, Andrew Herrmann, 15 November 2007*

### **Bear Species: Six of Eight Face Extinction**

Six of the eight species of bear in the world are now officially classed as facing extinction. The smallest, the sun bear (*Helarctos malayanus*), is the latest to be classified as vulnerable on the Red List of Threatened Species. Of the other species four - Asiatic black bear (*Ursus /Selenarctos thibetanus*), Sloth bear (*Melursus ursinus*), Andean bear (*Tremarctos ornatus*) and Polar bear (*Ursus maritimus*) - are also listed as vulnerable. The giant panda (*Ailuropoda melanoleuca*) is facing the greatest threat and remains in the endangered category. There is least concern over the European brown bear (*Ursus arctos arctos*) and the American black bear (*Ursus americanus*).

The sun bear found in Southeast Asia, Sumatra and Borneo, will be included in the 2007 Red List drawn up by the World Conservation Union (IUCN). Previously it was known as 'Data Deficient' meaning not enough was known about it to give it a classification. Rob Steinmetz, co-chair of the

IUCN Bear Specialist Group's sun bear expert team, said: "Although we still have lot to learn about the biology and ecology of this species, we are quite certain that it is in trouble. We estimate that sun bears have declined by at least 30% over the past 30 years (three bear generations), and continue to decline at this rate. Deforestation has reduced both the area and quality of their habitat. Where habitat is now protected, commercial poaching remains a significant threat. We are working with governments, protected area managers, conservation groups and local people to prevent extinction of the many small, isolated sun bear populations that remain in many parts of Southeast Asia."

Bear hunting is illegal throughout Southern Asia, but they suffer heavy losses from poachers, who risk the small chance of being caught against lucrative gains from selling parts. Bile from the bear's gall bladder is used in traditional Chinese medicine and their paws are consumed as a delicacy. Additionally, bears are often killed when they prey on livestock or raid agricultural crops. Bears simply roaming near a village may be killed because they are perceived as a threat to human life.

Dave Garshelis, co-chair of the Bear Specialist Group, which met in Mexico in November, to update the status of the eight species, said: "Although the bear population estimates for Asia are not as reliable as we would like, we estimate that bears in Southeast Asia are declining at a particularly rapid rate due to extensive loss of forest habitat combined with rampant poaching."

Bruce McLellan, also a co-chair, said: "An enormous amount of effort and funding for conservation and management continue to be directed at bears in North America where their status is relatively favorable. It is unfortunate that so little is directed at bears in Asia and South America where the need is extreme. We are trying to change this situation but success is slow." *Source: The Telegraph, Paul Eccleston, 12 November 2007*

#### **National Aviary to Send Endangered Bird to Guam**

The National Aviary will send one of its Guam rail (*Gallirallus owstoni*) birds to Guam to help repopulate the critically endangered species on the island. According to the National Aviary, the Guam rail has been extinct in the wild since 1997, and the captive population is critically endangered. The species was wiped out by the brown tree snake (*Boiga irregularis*), which was introduced accidentally on Guam during World War II.

A small conservation program began in 1983 in special breeding facilities and American zoos. Now, the Guam rail is part of the federal government's Species Survival Plan, and captive breeding has been found to be successful. A reintroduction program of an experimental population was recently established in the nearby island of Rota and two pairs of Guam rails are in the breeding program at the National Aviary. The breeding pairs have hatched a dozen young.

Native only to Guam, there were 10 recorded wild birds in the 1980s. The Guam rail is dark brown on the upper parts with a dull green band on the breast that fades to gray. A gray stripe stretches from the bill to the hind neck, with a brown stripe through the eye. The bill is black with a gray base, and the legs are gray. The breast, abdomen, wing feathers, and the outer primary feathers have distinct black and white barring.

The National Aviary is America's only independent indoor nonprofit zoo dedicated exclusively to birds. Located at West Park on Pittsburgh's historic North Side, the National Aviary's diverse collection comprises 600 birds representing more than 200 species from around the world, many of them threatened or critically endangered in the wild. *Source: Marianas Variety, Gerardo R. Partido, 29 November 2007*

#### **Endangered Brazilian Ocelot Kitten Born: Birth Significant For Species**

An endangered Brazilian ocelot kitten (*Leopardus pardalis mitis*) was born at the Louisville Zoo Sept. 23. This was the first offspring for mom Miguela and second for father Itirapua. The birth is very significant and important for the species. There are only 26 Brazilian ocelots in American Zoo and Aquarium Association (AZA) institutions nationwide. The birth is also notable because of the passing on of Itirapua's vital founder stock genetic diversity. When Itirapua's mother, who lived in the wild, was hit by a car, she was taken to a local animal hospital where Itirapua was born. He was named after that local Brazilian town—Itirapua. He is known as Itty for short.

"There are only seven Brazilian ocelots considered founder stock in AZA institutions," said Louisville Zoo Assistant Animal Curator Candy McMahan. "So Itty's genes are critical for the species."



El Conquistador  
(photo by Karen Bussabarger)

El Conquistador garnered his name when at two days old he wandered from his mother's side and squeezed through fencing into a hallway for keeper staff on the back side of the exhibit.

"And he did all this when he was unable to see," McMahan laughed. "He was so young, his eyes were still closed. So, we named him El Conquistador because he is definitely an explorer and conqueror." McMahan said. "The current SSP® [Species Survival Plan] goal is for the Brazilian ocelot population to top 100 animals and that starts with successful births like El Conquistador."

Brazilian ocelots, a subspecies of ocelots (there are eight), are native to Brazil and about three times the size of a housecat. They are one of the smallest felines found in the tropical rainforest.

Source: *ScienceDaily, Louisville Zoo, 30 November 2007*

### **Cameroon Welcomes Home "Taiping Four" Gorillas**

Cameroon has welcomed home four endangered western lowland gorillas (*Gorilla gorilla gorilla*) known as the "Taiping Four", following an international campaign that won their return from Malaysia, where they were illegally smuggled five years ago. The four, a male and three females, were flown to Douala airport late on November 30<sup>th</sup>, from South Africa, where they had been kept at the National Zoological Garden in Pretoria after the Malaysian government sent them back to Africa in 2004. Malaysia's Taiping Zoo had acquired the apes after they were trapped as infants in Cameroon's forests in 2002 and illegally smuggled out of the central African country. DNA tests established they came from Cameroon, whose government launched an intense diplomatic lobbying campaign for their return, backed by international conservation groups that seek to protect endangered primates.

"This is a victory for our diplomacy. This is proof of our commitment to the principle of the protection of our wildlife," Cameroon's Minister of Forestry and Wildlife, Elvis Ngolle Ngolle, told reporters at Douala airport as the gorillas were unloaded in big cages from the plane.

As he spoke, young men and women wearing T-shirts from a local environmental group performed traditional dances and chanted songs calling for wildlife to be preserved. They waved placards with the message "No to gorilla trafficking". After their arrival, the gorillas were taken to the Limbe Wildlife Centre sanctuary. They will initially be freed into a quarantine facility before joining 11 other gorillas at the sanctuary in a special enclosure. Pretoria's zoo sent two of its primate keepers with the apes to assist with their resettlement at the Limbe sanctuary.

Western lowland gorillas are grey brown, grow up to 6 feet (1.83 metres) tall and can weigh as much as 275 kg (606 lb). Their intelligence and physical structure make them one of man's closest relatives. Man is their only predator, with hunters tracking them for bushmeat and timber companies destroying their natural habitat. Cameroon is one of the few countries where they still exist in the wild, although numbers are fast dwindling.

"I am absolutely delighted that the gorillas are back in Cameroon ... This sends a message to poachers and traffickers that the world will not stand by and tolerate the illegal trade in wildlife. Our wildlife indeed should stay wild and stay in the jungle," Christina Pretorius of the International Fund for Animal Welfare (IFAW) said. IFAW was one of several conservation groups that backed Cameroon in its campaign to recover the "Taiping Four". Due to an increase in the hunting of animals for bushmeat — especially prized primates — across Africa, sanctuaries across the continent are dealing with an influx of primate orphans in need of lifelong care. The Limbe sanctuary has rescued four chimps this year alone. Source: *Reuters, Tansa Musa, 1 December 2007*

## Rare Sumatran Rhino Sighting in Malaysia

A Sumatran rhinoceros (*Rhinoceros sumatrensis*) has been photographed in peninsular Malaysia in the first sighting for more than a decade, raising hopes the animal can avoid extinction, a report said Sunday.

The *New Straits Times* said the image, captured by a camera trap, snapped just a small part of the rhino but experts declared the wrinkly and folded thigh was unmistakable.

Rhino footprints were last found in southern Johor state in 2001 but it was only in 1994, when a stray animal wandered out of a forest in northern Perak, that the animal was last sighted in the wild, according to the newspaper.

The report did not reveal where the rhino was snapped, but said the photo was taken in a wildlife corridor targeted by the Wildlife and National Parks Department which also spotted elephants, sun bears and the bison-like gaur.

“We’re going back to areas where the rhinos were once recorded, looking for more signs and taking samples,” said Siti Hawa Yatim, head of the department’s biodiversity conservation division. “We’re also looking for doomed animals — individuals alone in a vast area that cannot survive without companions.”

World Wildlife Fund Malaysia announced earlier this year that it had captured video footage of the extremely rare Borneo sub-species of the critically-endangered Sumatran rhino. The footage, taken in a forest in Malaysia’s Sabah state on Borneo Island, showed a rhino eating, peering through jungle foliage and sniffing the automatic video camera equipment used to shoot it.

The Sumatran rhinoceros is one of the world’s most endangered species with only small numbers left on Indonesia’s Sumatra island, Sabah and peninsular Malaysia, according to the WWF. The Bornean sub-species is the rarest of all rhinos, distinguished from other Sumatran rhinos by its relatively small size, small teeth and distinctive shaped head. WWF says scientists estimate there are only between 25 and 50 of the Bornean sub-species left. *Source: AFP.cpm 12/2/07*

## Endangered Tiger Caught on Camera

A South China tiger (*Panthera tigris amoyensis*) has been caught on camera by a hunter-turned-farmer, the first confirmed sighting for 30 years of a sub-species experts had feared was extinct in the wild, Xinhua News Agency has reported. Zhou Zhenglong took over 70 snaps of the young tiger lying in the grass near a cliff in a mountainous part of central China. Experts confirmed the images showed one of the elusive cats.

Villagers from his home area had reported several sightings of the tigers, paw-prints and droppings, but none had been confirmed for decades, the official news agency said. “There has been no record of the survival of the wild south China tiger in more than 30 years, and it was only an estimate that China still had 20 to 30 such wild tigers,” Xinhua quoted Lu Xirong, head of a South China tiger research team.

In the early 1950s an estimated 4,000 of the tiger subspecies, one of the world’s smallest and the only one native to central and southern China, roamed the country, but its habitat has been squeezed by the country’s rapideconomic growth.

The Forestry Department of Shaanxi Province, where the tiger was sighted, plans to set up a specialprotectiona area for them, Xinhua said. *Source: Reuters via tvnz.co.nz 10-13-07*

## On the Edge - It's electric!

A Japanese aquarium used electric eels to power its Christmas tree lights this holiday season. Each time the electric eel at the Aqua Toto Gifu aquarium touches a copper wire in its tank, it sends power straight to the lights on a nearby tree. That's one way to cut down the electric bill. *Source: www.fark.com 12/4/07 via ZooNews Digest 474 3rd - 10th Dec. 2007*

## Giant Spitting Cobra Species Discovered

A conservation group in Kenya has announced a new species of giant spitting cobra, measuring nearly nine feet and possessing enough venom to kill at least 15 people, has been discovered. WildlifeDirect said the cobras were the world's largest and had been identified as unique. The species has been named *Naja Ashei* after James Ashe, who founded Bio-Ken snake farm on Kenya's tropical coast where the gigantic serpents are found. Ashe, now deceased, was the first to catch a larger-than-normal spitting cobra in the 1960s and suggest it belonged to a different species.

"A new species of giant spitting cobra is exciting and reinforces the obvious – that there have to be many other unreported species but hundreds are being lost as their habitats disappear under the continued mismanagement of our planet," said the group's chairman, Kenyan environmentalist Richard Leakey.

Bio-Ken director Royjan Taylor said the recognition of the new species was an opportunity to raise awareness about snake conservation as well as find remedies for the powerful bite.

"*Naja Ashei* is responsible for a very serious snake bite," he told Reuters by telephone from the farm. "People don't care about saving snakes. They talk of saving dolphins or cats, but never snakes!"

The conservationists' excitement has drawn scientific endorsement from a British-based biologist. Research published by Wolfgang Wuster of the University of Wales said a field visit confirmed the *Naja Ashei* is a new species. "The new species is diagnosable from all other African spitting cobras by the possession of a unique DNA," he wrote in a review in July. *Source: Nicolo Gnechi/Reuters News Agency 12/07/07*

## Indonesia Announces National Conservation Program for Orangutans

Indonesia is preparing a conservation program to protect orangutans (*Pongo pygmaeus* and *Pongo abelli*) and their habitats in Borneo and Sumatra, Indonesia's President Susilo Bambang Yudhoyono told delegates at the World Climate Conference on Bali last month. "The key understanding is to save the orangutans. For that we must save the forest and by that we are doing our part to reduce greenhouse gas emissions," Yudhoyono said.

Orangutan habitat is decreasing as a result of rapid deforestation. The great apes are then often shot by farmers as the animals seek nourishment in the large palm oil plantations that are encroaching deeper into the forest. According to Yudhoyono, at least 50,000 orangutans have been killed in the last few years. On Borneo there are still around 54,000 orangutans, but 'without protection they will die out by 2050,' said the president.

Together with environmental organizations, Indonesia plans to create sustainable conservation of orangutan habitat by placing more forests under nature preserve status. Wood, paper and palm oil plantations in the future will have to apply for deforestation licenses which will be contingent on forest conservation. The Indonesian government also hopes to be able to sell carbon dioxide emission certificates to greenhouse gas producers in order to lower the overall emissions. *Source: Science & Nature.com via ZooNews Digest 474 3-10 December 2007*



*Photo: Wikipedia.org*

## Back AKF Issues Sought

Adam Eyres, Hoofstock Supervisor at the Fossil Rim Wildlife Center, Glen Rose, TX, is seeking back issues of *Animal Keepers' Forum* from 1989 to present. If anyone has AKFs they are willing to part with, Adam is trying to rebuild the *Forum* library at the Center. If you can help, please email Adam at [adame@fossilrim.org](mailto:adame@fossilrim.org) to work out arrangements or shipping.

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